

CLAIMS

1. An I/O expansion system comprising:  
a female connector (10; 100) for operative connection to a baseboard,  
5 and  
an add-in card (40) having a male connector (44) on a first edge for receipt by the female connector (10; 100) and a notch (48) for receipt of a retention formation (28; 108) of the female connector (10; 100),  
wherein it further includes a carriage part (20; 102) movable along the length of  
10 the female connector (10; 100) and providing support for the retention formation (28; 108).
2. An I/O expansion system according to claim 1 wherein it further includes on a surface of the carriage part (20; 102) adjacent the female  
15 connector a locking formation (22; 106), and on an outer surface of the female connector a plurality of co-operating locking formations (18) spaced apart along the length of the female connector (10; 100), such that the carriage part (20; 102) is lockable with respect to the female connector (10; 100) at a plurality of positions along its length, and wherein the carriage part (20; 102)  
20 includes a recess (30) in its upper surface (20a; 102a) into which in use an edge of the add-in card (40) is received.
3. An I/O expansion system according to claim 2 wherein the locking formation (22;106) on the carriage part (20; 102) is a protrusion, and the  
25 locking formations (18) on the female connector (10; 100) are recesses.
4. An I/O expansion system according to any one of claims 1 to 3 wherein the retention formation (28) is pivotable between an operative position in which

the retention formation (28) is within the notch (48) on the add-in card and acts to retain the add-in card in the female connector and an inoperative position in which the retention formation (28) is free of the notch (48) on the add-in card (40) and the add-in card (40) can be removed from the female connector (10; 5 100), and wherein it further includes an arm (26) connected with the retention formation (28) for pivoting of the retention formation (28) between the operative and inoperative positions.

5. An I/O expansion system according to any one of claim 4 wherein the 10 retention formation (28) is hook shaped.

6. An I/O expansion system according to any one of claims 1 to 3 wherein the carriage part (102) includes an upwardly extending arm (104) and the retention formation (108) is an inwardly extending protrusion from the 15 upwardly extending arm (104), and wherein the upwardly extending arm (104) is resiliently deformable and the retention formation (108) has a cam surface (109) on its upper side such that when the add-in card (40) is inserted into the female connector (100) the upwardly extending arm (104) bends outwardly to permit the retention formation (108) to ride over a leading edge of the notch 20 (48) and then into the notch (48) to retain the add-in card (40) in the female connector (100).

7. An I/O expansion system according to any one of claims 2 to 6 wherein the female connector (100) includes a housing (11) which supports a plurality 25 of electrical contacts (14), and the co-operating locking formations (18) spaced apart along the length of the female connector (100) are provided on an outer surface of the housing (11) and wherein the carriage part (102) is substantially "U" shaped.

8. An I/O expansion system according to any one of claims 2 to 6 wherein the female connector (10) includes a housing (11) which supports a plurality of electrical contacts (14), and a cover (16) which increases the width of the female connector (10) towards its upper surface, and the co-operating locking formations (18) spaced apart along the length of the female connector (10) are provided on an outer surface of the cover (16), and wherein the carriage part (20) is substantially "C" shaped, and is retained on the female connector by engaging beneath the cover (16).
9. A female connector for an I/O expansion system according to anyone of the preceding claims.
10. A female connector (10; 100) specifically adapted for both operative connection to a baseboard and receipt of a male edge connector (44) of an add-in card (40); wherein it includes a carriage part (20; 102) movable along the length of the female connector (10; 100) and providing support for a retention formation (28; 108) specifically adapted to engage in use with a formation (48) on the add-in card (40) to retain the male edge connector (44) of the add-in card (40) in the female connector (10; 100).